

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computer-readable medium holding computer-executable instructions, the medium comprising:

instructions for selecting at least one characteristic common to a plurality of source blocks in an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system, said selected at least one characteristic being at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter;

instructions for receiving a designation of at least one destination block in said executable block diagram model;

instructions for providing said designated at least one destination block with said selected at least one characteristic if said designated at least one destination block does not have said selected at least one characteristic; and

instructions for propagating a value of said selected at least one characteristic from at least one source block in said plurality of source blocks to said destination block.

2. (Canceled)

3. (Currently Amended) The medium of claim 1, further comprising:

instructions for creating a data structure for said ~~the~~ selected at least one characteristic, said data structure having a plurality of substructures.

4. (Previously Presented) The medium of claim 1 wherein said selecting at least one characteristic involves the use of a category list, said at least one characteristic associated with at least one category of said category list.

5. (Canceled)

6. (Previously Presented) The medium of claim 1 wherein said destination block is a subsystem representing a plurality of blocks and said selected at least one characteristic is propagated to each of said plurality of blocks.

7. (Previously Presented) The medium of claim 1 wherein said destination block is a subsystem block representing a plurality of lower-level blocks and said propagating is restricted to propagating to said subsystem block without propagating to said plurality of lower-level blocks.

8. (Previously Presented) The medium of claim 1, further comprising:
instructions for undoing said propagating by returning characteristics of said destination block to a condition existing prior to said propagating.

9. (Currently Amended) The medium of claim 1 wherein said propagating said selected at least one characteristic involves propagating less than all characteristics of said ~~the~~ source block.

10. (Currently Amended) The medium of claim 1 wherein said propagating involves propagating less than all characteristics of said ~~the~~ source block, as specified by a user.

11. (Previously Presented) The medium of claim 1 wherein said selecting involves selecting said at least one characteristic to be propagated from a Graphical User Interface (GUI).

12. (Previously Presented) The medium of claim 1 wherein said selecting involves selecting said at least one characteristic to be propagated by the use of a shortcutkey.

13. (Currently Amended) The medium of claim 1 wherein said propagating involves propagating less than all characteristics of said ~~the~~ source block, as automatically determined based on characteristics of said source block and characteristics of said destination block.

14. (Previously Presented) The medium of claim 1, further comprising:
instructions for storing information relating to propagating to enable repeating said propagating.

15. (Previously Presented) The medium of claim 14 wherein said storing comprises storing information relating to multiple iterations of said propagating.

16. (Currently Amended) The medium of claim 1, further comprising:

instructions for determining which blocks of said block diagram have characteristics corresponding to said ~~the~~ selected at least one characteristic in said selecting.

17. (Previously Presented) The medium of claim 1, further comprising:

instructions for determining which blocks of said block diagram have characteristics that could be propagated to said destination block.

18. – 19. (Canceled)

20. (Previously Presented) The medium of claim 1 wherein said selecting at least one characteristic is performed before said designating at least one destination block.

21. (Previously Presented) The medium of claim 1 wherein said source block is a predetermined member of a plurality of said destination blocks.

22. (Previously Presented) The medium of claim 1 wherein said designation of at least one destination block is performed from a text-based list.

23. (Previously Presented) The medium of claim 1 wherein said destination block does not have said characteristic prior to said propagating.

24. (Currently Amended) A system comprising:

a memory configured to hold an executable block diagram model of a dynamic system, said executable block diagram model having a plurality of blocks, a block of said executable block diagram model representing an elemental dynamic system; and

a processor configured to:

select at least one characteristic common to a plurality of blocks in ~~the~~ said executable block diagram model, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter,

receive a designation of a destination block in said plurality of blocks, and propagate said selected at least one characteristic to said destination block.

25. (Currently Amended) A computer-readable medium holding computer-executable instructions, the medium comprising:

instructions for receiving a designation of a source block in an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system;

instructions for receiving a designation of a plurality of destination blocks in [[a]]said executable block diagram model;

instructions for selecting at least one characteristic of said ~~the~~ source block, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter;

instructions for propagating said selected at least one characteristic to each of said plurality of destination blocks of said executable block diagram model.

26. (Currently Amended) An apparatus comprising:

a processor configured to receive a selection of at least one characteristic common to a plurality of source blocks in an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter;

means for receiving a designation of at least one destination block in said block diagram; and

means for propagating said selected at least one characteristic to said destination block.

27. – 28. (Canceled)

29. (Previously Presented) The apparatus of claim 26, wherein said selecting involves selecting said at least one characteristic to be propagated from a Graphical User Interface (GUI).

30. – 39. (Canceled)

40. (Currently Amended) A computer-readable medium holding computer-executable instructions, the medium comprising:

instructions for selecting at least one characteristic of a source line associated with a first block and a second block of an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system, said source line representing at least one signal, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter;

instructions for receiving a designation of at least one destination line associated with a third block and a fourth block of said executable block diagram model; and

instructions for propagating said selected at least one characteristic to said destination line associated with said third block and said fourth block of said executable block diagram model.

41. (Original) The medium of claim 40, wherein said second block and said third block are the same block.

42. (Currently Amended) A computer-implemented method comprising:

selecting at least one characteristic common to a plurality of source blocks in an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter;

receiving a designation of at least one destination block in said executable block diagram model; and

propagating said selected at least one characteristic to said ~~the~~ least one destination block.

43. (Previously Presented) The method of claim 42 further comprising:

determining said at least one destination block in a same block type as at least one source block in said plurality of source blocks.

44. (Previously Presented) The method of claim 42 wherein said at least one destination block is designated based on said selected at least one characteristic, said selected at least one characteristic matching a characteristic of said at least one destination block.

45. (Previously Presented) The method of claim 44 wherein said at least one characteristic of said at least one destination block indicates that said at least destination block is representative of a virtual subsystem.

46. (Previously Presented) The method of claim 42 wherein said at least one destination block is a subsystem representing a plurality of blocks and said selected at least one characteristic is propagated to each of said plurality of blocks in said subsystem.

47. (Currently Amended) A medium holding computer-executable instructions, the medium comprising:

instructions for selecting at least one characteristic of a first source block and a second source block in an executable block diagram model representing a dynamic system, a block of said executable block diagram model representing an elemental dynamic system, said selected at least one characteristic including at least one of a functional attribute, a compiled attribute, an execution data field, a block method or a block parameter, said first source block having said selected at least one characteristic of a first value, said second source block having said selected at least one characteristic of a second value;

instructions for receiving a designation of a first destination block and a second destination block in said executable block diagram model; and

instructions for propagating said selected at least one characteristic to said first destination block and said second destination block, said first value propagated to said first destination block and said second value propagated to said second destination block.

48. (Previously Presented) The medium of claim 47 wherein said propagating determines said first destination block and said second destination block by the use of respective contexts relative to said first source block and said second source block.